

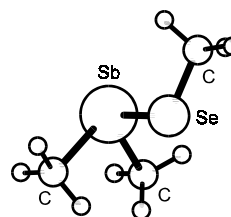
1420
ED

C₃H₉SbSe

Dimethyl(methylseleno)stibine
Dimethyl(methylseleno)stibane

essentially C_s (*syn*)
C_s (*anti*) assumed
H₃C–Se–Sb(CH₃)₂

r_a	Å ^{a)}	θ_a	deg ^{a)}
Sb–Se	2.555(3)	C–Sb–Se	94(1)
Sb–C	2.155(6)	Sb–Se–C	105(3)
Se–C	1.955(12)	Sb–C–H	102(3)
C–H (mean)	1.125(7)	Se–C–H	99(4)
		C–Sb–C	94.1 ^{b)}
		ϕ (<i>syn</i>) ^{c)}	21(9)
		ϕ (<i>anti</i>) ^{c)}	180 ^{d)}



syn

It was assumed that the vapor contained a mixture of *syn* and *anti* conformers differing only in the value of the dihedral angle ϕ . The mole fraction of the *syn* conformer was found to be 97(6)%. The presence of the second conformer remained uncertain. Local C_{3v} symmetry for the SbCH₃ and SeCH₃ groups and local C_s symmetry for the SeSb(CH₃)₂ fragment were assumed. The torsion angles of the methyl groups were fixed in such a way that one C–H bond in each group was *anti* relative to the Sb–Se bond.

The nozzle was 20...25 °C.

^{a)} Twice the estimated standard errors including the scale error.

^{b)} Transferred from literature data for Sb(CH₃)₃.

^{c)} Dihedral angle lp–Sb–Se–C; lp is the lone pair at the Sb atom; $\phi = 0^\circ$ for the eclipsed position.

^{d)} Fixed.

Haaland, A., Verne, H.P., Volden, H.V., Breunig, H.J., Gülec, S.: Z. Naturforsch. **48b** (1993) 1065.